

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/111335 A1**

(51) International Patent Classification<sup>7</sup>: D21G 1/00

(21) International Application Number:  
PCT/FI2004/050097

(22) International Filing Date: 17 June 2004 (17.06.2004)

(25) Filing Language: Finnish

(26) Publication Language: English

(30) Priority Data:  
20030913 18 June 2003 (18.06.2003) FI

(71) Applicant (for all designated States except US): METSO  
PAPER, INC. [FI/FI]; Fabianinkatu 9 A, FI-00130  
Helsinki (FI).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KIRVESKARI, Erkki  
[FI/FI]; Välihaaka 90, FI-07190 Halkia (FI).

(74) Agent: TAMPEREEN PATENTTITOIMISTO OY;  
Hermiankatu 12 B, FI-33720 Tampere (FI).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

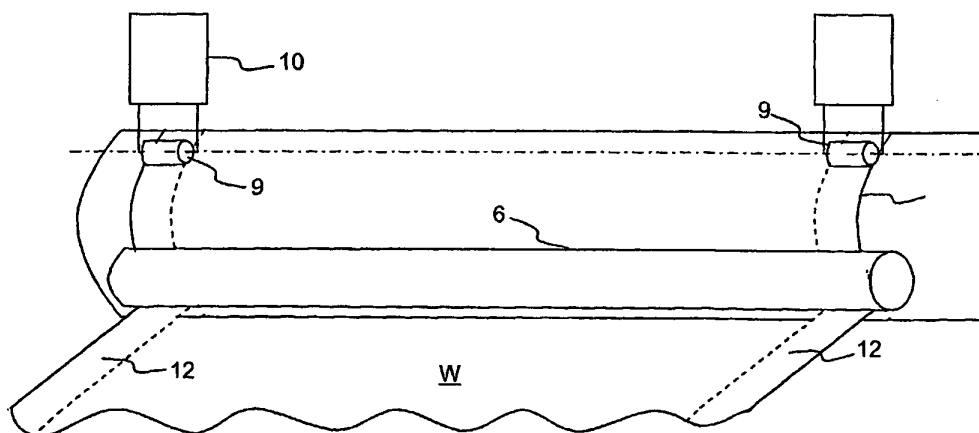
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR CALENDERING A PAPER OR PAPERBOARD WEB



(57) Abstract: A method and a device for calendering a paper or paperboard web, in which the web (W) is led first into a calendering  
step (1) and then into a reeling step (2). At least one edge area (12) of the web (W) is calendered separately in the reeling step (2).

WO 2004/111335 A1